COOP News

Volume 4 Issue 1

History of the Cooperative Weather Observer Program

In 1644 and 1655, John Campanius Holm, a Lutheran minister, was the first observer to take systematic observations in the American Colonies. In 1776, Thomas Jefferson began to recruit volunteer weather observers throughout Virginia. By 1800, there were volunteers in five other states across the newborn nation. They included Massachusetts, Pennsylvania, Connecticut, New York and North Carolina. In 1891, the network of voluntary weather observers across the country had grown to 2,000.

In 1890, the growing volunteer force was taken over by the Smithsonian Institution. It was not until 1953 that a plan was established to evenly blanket the nation with weather observers. Dr. Helmut Landsberg of the Weather Bureau (now the National Weather Service), conducted a study with Iowa State University to establish a method of filling in the open spaces of this volunteer network. As a result of this study, it was determined that there should be one weather station every 25 miles for estimating rainfall within an accuracy tolerance of ten percent. By 1990, the network had expanded to 10,000 sites. The most recent statistics estimate that there are 12,000 cooperative observers in the United States.

To date, Mr. Edward G. Stoll, who took weather observations for 76 years in Arapahoe, Nebraska, has the longest history as a Cooperative Weather Observer. He has a 50 year award named after him. Mrs. Ruby Stuft, a volunteer weather observer from Elsmere, Nebraska, received the first ever Edward G Stoll Award. Mrs. Stufft recorded the weather for 70 years and became the first woman to ever reach that milestone.

Anyone can become a weather observer. To learn more, visit www.nws.noaa.gov/om/coop or contact your local NWS Office.

Did you know there is a national cooperative observer newsletter. You can view the newsletter at this address:

www.nws.gov/om/coop/coop_newsletter.htm

Five East Kentucky Weather Events of 2013

As in previous years, the staff of the National Weather Service (NWS) Jackson, KY voted on weather events which occurred during 2013, choosing what they considered to be the Top 5 events of the year. Below are the Top 5 Weather Events of 2013 as voted on by the staff:

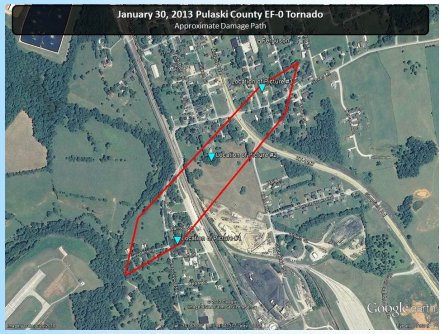
Number 1: Ferguson in Pulaski County is Hit by 2 Tornadoes:

The Ferguson community in Pulaski County was hit by 2 tornadoes in 2013. The first tornado occurred on January 30th and was an EF-0 with estimated peak winds of 65 to 75 mph. The tornado travel a half mile through a residential area crossing Murphy Ave. near the Grover Lane intersection. This tornado also had the distinction of being the first ever documented tornado to have occurred in the WFO Jackson forecast area during the month of January. Touchdown occurred in the Ferguson community near the end of the runway of the Lake Cumberland Regional Airport.

The second tornado to hit the Ferguson community occurred on March 24th and was an EF-1 with estimated peak winds of 100 mph. Touchdown occurred at a warehouse building on Waddle Street. The tornado traveled approximately 700 yards.

Fortunately, no injuries or fatalities were associated with these tornadoes. For more information on these events:

January 30th tornado



March 24th tornado

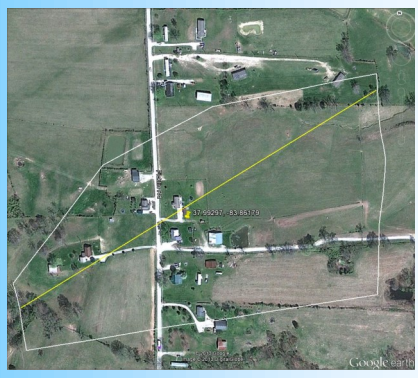
Number 2: April 11th Severe Thunderstorm Produces Wind Gusts in Excess of 85 mph:

A potent cold front, ample low level moisture, and abundant instability combined to bring severe weather to portions of eastern Kentucky during the evening hours of April 11th. The bulk of the severe weather occurred in Bath and Montgomery Counties, with isolated, severe events also occurring in Rockcastle, Laurel, Rowan, and Whitley Counties. Significant wind damage occurred in Montgomery County between Camargo and Jeffersonville.

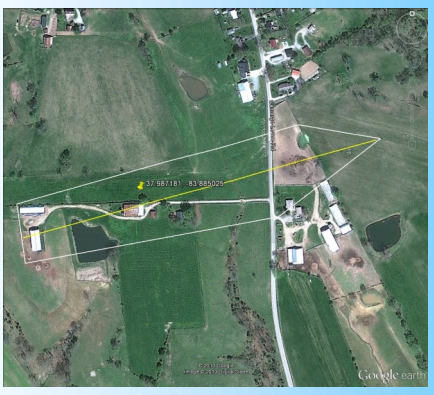
A storm damage survey team from NWS Jackson, KY confirmed that much of the damage was caused by straight line winds estimated to have peaked between 85 and 95 mph. The straight line winds spread debris out across an area approximately 660 yards in length and about 720 yards wide.

Top Five East Kentucky Weather Events of 2013 (Continued)

Fortunately, no injuries or fatalities were associated with this event. For more information on this event: April 11th Straight Line Winds

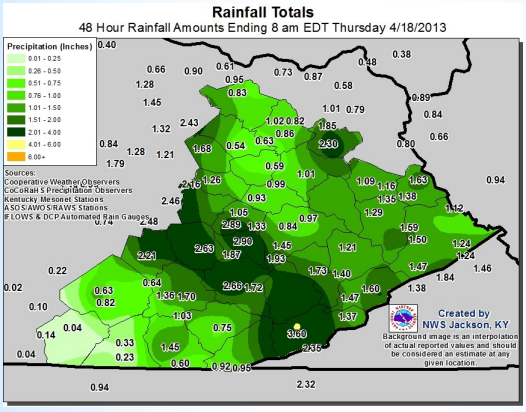


These images show the approximate extent of the debris fields from the high winds that struck the area between 6:55 and 7:05 PM EDT.



Number 3: April 17th Flash Flood Event:

Clusters of thunderstorms formed over central Kentucky and then pushed eastward into east Kentucky during the morning hours of April 17th. The thunderstorms produced isolated wind damage early in the morning in Letcher county, but the bigger impacts were from flash flooding which occurred late in the morning. Flash flooding was reported in Estill, Owsley, Bell and Harlan Counties, with the worst flash flooding occurring in Clay and Knox Counties. For more information on this event: April 17th Flash Flood



Number 4: June 17th Flash Flooding in Perry and Breathitt Counties:

Isolated, slow moving thunderstorms caused creeks and streams to overrun their banks in parts of Perry and Breathitt Counties on June 17th. The Big Creek community of Perry County was especially hard hit. Extensive flooding was reported in the Big Creek area along Highway 1096.

Cars were reported to have been washed away, with water entering houses in one area. One water rescue took place for people trapped in the rising waters. The Big Creek Elementary School was flooded by as much as 3.5 feet of water. The interior of the building received only minor damage. In Breathitt County, a portion of War Creek Road was washed out. The water was knee deep in places and flowing over the bridge.

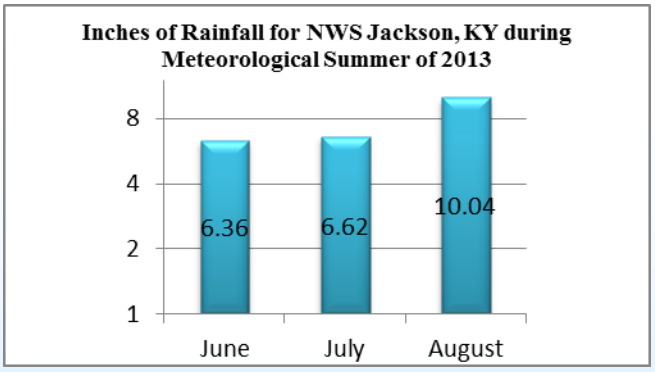
Top Five East Kentucky Weather Events of 2013 (Continued)

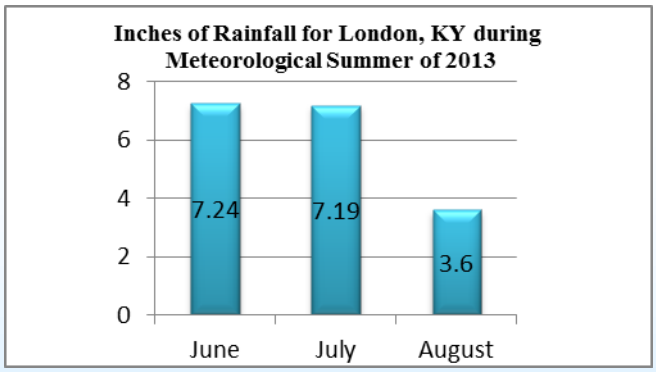
Number 5: A Very Wet Summer: Wettest Summer on Record at Jackson Kentucky and The 3rd Wettest Summer on Record at London, Kentucky:

The summer of 2013 was one of the wettest on record across eastern Kentucky. Meteorologists break the seasons down differently from what you see on the calendar. Meteorological summer technically runs from June 1st through August 31st. The National Weather Service (NWS) Office in Jackson, KY finished the meteorological summer with a total of 23.02 inches of rain, which is nearly 10 inches above normal. This makes 2013 the wettest meteorological summer, as well as the wettest season on record since climate records began at the Jackson Weather Office in 1981.

Meanwhile, looking at the record book for the London-Corbin Airport, which has records going back to November 1954, it appears that the 18.03 inches of rain recorded there from June to August 2014, places them in 3rd place for total rainfall during the meteorological summer. The wettest summer on record at London occurred in 2003, when 21.13 inches of rain fell.

For more information on this subject: A Very Wet Summer





HONORABLE MENTIONS:

Although these events did not make the Top 5 Weather Events list, we felt that they deserved an honorable mention:

1. Severe Thunderstorm Produces Wind Gusts up to 80 mph in Magoffin County on June 9th.
   For information on this topic: Severe Thunderstorm in Magoffin County
2. Unprecedented 17th Winter in a Row without a Major Cold Wave in eastern Kentucky.
   For more information on this topic: 17th Winter without a Major Cold Wave

2014 Cooperative Observer Length of Service (LOS) Awards

The National Weather Service Office in Jackson would like to take a moment to recognize and congratulate cooperative observers who are receiving Length of Service Awards this year.

Individual Length of Service (LOS) Awards:

1. Ken Lewis — Booneville 12SW — 15 year LOS
2. Eula Skidmore — Slade 5NE — 25 year LOS
3. Rudy Young — Stearns 2S — 35 year LOS

Institution Length of Service (LOS) Awards:

1. Flemingsburg 2N — 25 year LOS

New Cooperative Observers

1. Cathy Rehmeyer — Pikeville Downtown, Pike Co.
2. Steve and Sharon Witt, Clover Bottom 1WSW, McKee Co.

SKYWARN® Weather Spotters

The effects of severe weather are felt every year by many Americans. To obtain critical weather information, the National Weather Service (NWS), in conjunction with partner organizations, established SKYWARN®. SKYWARN® is a volunteer program with nearly 290,000 trained severe weather spotters. These volunteers help keep their local communities safe by providing timely and accurate reports of severe weather to the NWS. Spotters generally report significant events such as damaging winds, heavy rain, tornadic activity, ice and snow, along with other events that have an impact on the forecast of the safety of the community. For additional info on this topic, click here: national SKYWARN® page.

To become a trained SKYWARN® spotter, you will need to attend a SKYWARN® Weather Spotter class. NWS Jackson, KY typically holds several classes across eastern Kentucky throughout the year. Unless otherwise stated, these classes are open to the public , are free of charge, and require no registration. A schedule of upcoming classes can be found here: Upcoming Spotter Classes.

The following resources are also available to assist weather spotters who have already attended a SKYWARN® Weather Spotter Class:

1. Weather Spotter's Field Guide
2. Role of the SKYWARN® Spotter Training Module — This is offered through UCAR's MetEd program. The goal of this module is to provide baseline training for all spotters through multiple scenarios covering the procedures for spotting (including communication and storm reports), safety considerations for all hazards, and an overview of the national program and its history.
3. SKYWARN® Spotter convective Basics Module — This is offered through UCAR's MetEd program. This module will guide users to a basic understanding of convective storms. Through 3 different scenarios, you will cover reporting and proper communication of local storm reports to the NWS, personal safety during these events, and field identification of convective storm hazards. After completing the scenarios, you will be given the opportunity to practice identifying storm features from a spectrum of photos.

For further information regarding this program, contact Tony Edwards. Warning Coordination Meteorologist (WCM) at NWS Jackson, KY at Tony.Edwards@noaa.gov or (606) 666-2560, ext. 726.

Visit us on the web at:
www.weather.gov/jacksonky

Reminders and Tips

1. If you enter your observation in Wxcoder, please have the observation entered by 9:30 a.m. We use the data you submit to produce a morning Regional Temperature and Precipitation Summary (RTP) that is displayed on our web page. This report must be generated before 10 a.m.
2. If you are going out of town, please try to notify us ahead of time. Our email addresses are: **jeffrey.carico@noaa.gov** and **tabitha.brewer@noaa.gov**, or you can call us at (606) 666-5636.
3. Check the inner tube and funnel of your rain gauge to ensure it did not crack during the winter. If you find cracks, please let us know and we will send you a replacement.
4. Let us know ASAP if you are experiencing problems with your temperature equipment. Some errors we can help you correct when you call, others may require a home visit.
5. If you miss taking an observation and you have the NIMBUS max/min box, you can call us and we can step you back through to get the max, min and at observation temps.
6. If your box is displaying –99.9, that generally means there has been a loss of power to the box. In this instance, check to see that the box is plugged in. If the box is plugged in, then gently push in on the plug in the back of the box to ensure it is making connection. If –99.9 still displays, unplug your box, then plug it back in. If all of the above fails to clear the –99.9, call and let us know. A home visit may be required.
7. If your box is displaying an "L", that means the back-up battery needs to be replaced.
8. Remember to enter zeroes in the snowfall and snow depth columns on your B91s as well as entering them into Wxcoder. This gets you ready for the winter season and becomes a habit. It is also important that the columns on your B91 are all filled in, even if no precipitation has occurred.
9. It is the time of year to start scheduling routine visits, so don't be surprised if you get a phone call from a staff member of the Jackson NWS Office to set up a time to visit.
10. If you are a Fisher Porter site, please get those cards mailed out to us by the 15th of the month.